IN THE CLAIMS

Claims 1-8 (Cancelled).

9. (Previously Presented) A method for forming a seal on a cable having a core material, including the steps of:

removing an amount of an overlayer on the core material sufficient to expose a surface to which a bonding layer may be applied;

creating a bonding layer by plating the exposed surface with a metal to form a metal-plated surface;

applying a bonding agent to at least a portion of the metal after the metal has been plated on to the exposed surface, the bonding agent being applied by:

placing a region of the cable into a mold; and

applying epoxy to a region of the optical fiber disposed in a mold for a sufficient time to bond the epoxy to at least a portion of the metal-plated surface.

10. (Cancelled).

11. (Previously Presented). The method of claim 9, wherein the step of plating the exposed surface includes applying a layer including at least one of chromium, nickel and gold.

12. (Previously Presented). The method of claim 9, wherein the step of applying a bonding agent includes the step of applying epoxy to the metal-plated surface.

13. (Previously Presented) The method of claim 9, wherein:

the cable includes a plurality of optical fibers, each having a silica core; and

the step of plating the exposed surface includes the step of applying at least one of chromium, nickel and gold to each silica core in the cable.

14. (Cancelled).

15. (Previously Presented) An optical fiber cable, including:

a plurality of optical fibers each having a silica core, the cable having a first region wherein at least some of the optical fibers have a first coating, a second region wherein at least some of the optical fibers have substantially no coating, and having a third region wherein at least some of the optical fibers have a second coating;

a metal-plating applied to at least a portion of a second region;

an epoxy seal bonded to the metal plating of at least some of the optical fibers in the second region and extending partly into the first region and partly into the ~~second~~ third region;

a first conductive tube surrounding at least a portion of the first region; a second conductive tube surrounding at least a portion of the third region; and

a conductive housing surrounding at least a portion of the second region, including the epoxy seal;

wherein the first conductive tube, second conductive tube and conductive housing form a continuous conductive path.

16. (Cancelled).

17. (Previously Presented) The optical fiber cable of claim 15, further including an insulating sleeve over each of the first conductive tune, second conductive tube and conductive housing.

18. (Original) The optical fiber cable of claim 17, wherein the insulating sleeve includes polyethylene.

19. (Previously Presented) A system for transmission of data between a first environment having a low relative pressure and a second environment having a high relative pressure, including:

a communications cable including a plurality of optical fibers each having a silica core, the cable having a first region wherein at least some of the optical fibers have a first coating, having a second region wherein at least some of the optical fibers have substantially no coating, and having a third region wherein at least some of the optical fibers have a second coating;

a metal plating in contact with at least a portion of the second region;

an epoxy seal being molded about the metal plating, enclosing all of the second region and extending at least partially into the first region and partly into the third region; and

at least one electronics module positioned within the first environment and coupled to a portion of the optical fibers in the first region.

20. (Previously Presented) The transmission system of claim 19, further including: a first conductive tube surrounding at least a portion of the first region;

a second conductive tube surrounding at least a portion of the third region; and

a conductive housing surrounding at least a portion of the second region, including the epoxy seal;

wherein the first conductive tube, second conductive tube and conductive housing form a continuous conductive path.

21. (Previously Presented) The transmission system of claim 20, further including a sleeve over each of the first conductive tube, second conductive tube and conductive housing.

22. (Previously Presented) The transmission system of claim 21, wherein the sleeve includes polyethylene.

23. (Previously Presented) The cable seal of claim 25, wherein a metal is applied to the optical fiber using chemical vapor deposition to produce the metal-plated optical fiber.

24. (Previously Presented) The method of claim 9, wherein the step of plating the exposed surface with a metal to form a metal-plated surface includes plating the exposed surface using a chemical vapor deposition process.

25. (Previously Presented) A cable seal configured to seal a cable against fluid passage in an environment wherein a pressure differential exists between a first region of the environment and a second region of the environment, including:

an optical fiber having at least a portion of a cover substantially removed;

a metal-plating in contact with the optical fiber having at least a portion of the cover substantially removed thereby providing a metal-plated optical fiber; and

a bonding agent molded about and enclosing all of the metal plated optical fiber and adjacent portions of covered optical fiber.

26. (Previously Presented)The cable seal of claim 25, wherein the optical fiber is plated with at least one of chromium, nickel and gold.

27. (Previously Presented) The cable seal of claim 25, wherein the bonding agent includes epoxy.

28. (Previously Presented) The cable seal of claim 25, wherein the epoxy is bonded to the metal-plated optical fiber.

29. (Previously Presented) The cable seal of claim 25, wherein the cable seal passes through a conductive tube.

30. (Previously Presented) The cable seal of claim 29, wherein the conductive tube is covered with an insulative material such that the cable seal is disposed within the conductive tube covered with an insulative material.

31. (Previously Presented) The system of claim 19, wherein said metal plating is applied directly to said at least a portion of the second region.

32. (Currently Amended) The system of claim 19, wherein said epoxy is applied directly to an outer surface of said metal plating.

33. (Previously Presented) A system for transmission of data between a first environment having a low relative pressure and a second environment having a high relative pressure, including:

a communications cable including a plurality of optical fibers each having a silica core, the cable having a first region wherein at least some of the optical fibers have a first coating, having a second region wherein at least some of the optical fibers have substantially no coating, and having a third region wherein at least some of the optical fibers have a second coating;

a metal plating in contact with at least a portion of the second region;

an epoxy seal being molded about the metal plating enclosing all of the second region and extending at least partially into the first region and extending partly into the third region; and

at least one electronics module positioned within the first environment and coupled to a portion of the optical fibers in the first region.

34. (Previously Presented) The transmission system of claim 33, further including:

a first conductive tube surrounding at least a portion of the first region;

a second conductive tube surrounding at least a portion of the third region; and

a conductive housing surrounding at least a portion of the second region, including the epoxy seal;

wherein the first conductive tube, second conductive tube and conductive housing form a continuous conductive path.

35. (Previously Presented) The transmission system of claim 34, further including a sleeve over each of the first conductive tube, second conductive tube and conductive housing.

36. (Previously Presented) The transmission system of claim 35, wherein the sleeve includes polyethylene.

37. (Previously Presented) The cable of claim 15, wherein the first region is exposed to a first environment, and the third region is exposed to a second environment different from the first environment.

38. (Previously Presented) The cable of claim 37, wherein the first environment has a different atmospheric pressure then said second environment.

39. (Previously Presented) The cable of claim 37, wherein atmospheric pressures of said first and second environments differ by at least 10,000 psi .

40. (Previously Presented) The cable of claim 19, wherein the first region is exposed to a first environment, and the third region is exposed to a second environment different from the first environment.

41. (Previously Presented) The cable of claim 40, wherein the first environment has a different atmospheric pressure then said second environment.

42. (Previously Presented) The cable of claim 41, wherein atmospheric pressures of said first and second environments differ by at least 10,000 psi.

43. (Previously Presented) The cable of claim 25, wherein the first region is exposed to a first environment, and the third region is exposed to a second environment different from the first environment.

44. (Previously Presented) The cable of claim 43, wherein the first environment has a different atmospheric pressure then said second environment.

45. (Previously Presented) The cable of claim 44, wherein atmospheric pressures of said first and second environments differ by at least 10,000 psi.

46. (Previously Presented) The cable of claim 33, wherein the first region is exposed to a first environment, and the third region is exposed to a second environment different from the first environment.

47. (Previously Presented) The cable of claim 46, wherein the first environment has a different atmospheric pressure then said second environment.

48. (Previously Presented) The cable of claim 47, wherein atmospheric pressures of said first and second environments differ by at least 10,000 psi.

49. (Previously Presented). A method for forming a seal on a cable having a core material, including the steps of:

providing a cable having a portion of an overlayer removed and a metal plated bonding layer covering the exposed core material in the portion;

applying a bonding agent to at least a portion of the metal plated bonding layer, the bonding agent being applied by:

placing a region of the cable into a mold; and

applying epoxy to a region of the optical fiber disposed in a mold for a sufficient time to bond the epoxy to at least a portion of the metal-plated surface.